NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

MOLE DRAIN

(ft)
Code 482

DEFINITION

An underground conduit constructed by pulling a bullet-shaped cylinder through the soil.

PURPOSE

This practice may be applied as part of a resource management system to establish a system of subsurface earthen channels for removal of trapped surface and subsurface water.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where the use of buried drains is physically or economically impractical to complete the drainage required. Mole drains may be used in fields with highly cohesive or fibrous soils that are free of stones, gravel, or sand lenses if the area served is small and if an outlet is available or can be constructed to provide continuously free outfall from the drains. They may also be used as a supplement to other drains.

CRITERIA

Laws and Regulations. Planned work shall comply with all federal, state, and local laws, rules, and regulations.

Size. The minimum diameter of a mole drain shall be 4-inches. A 6-inch mole will usually create a hole approximately 4 ½ inches in diameter.

Location, grade, and length. The location, grade, length of line, depth, spacing and size of drains, and the outlet protection for such drains shall meet requirements of NRCS National Engineering Handbook, Part 624, Drainage, or the Florida Drainage Guide.

Outlet. Outlets must have sufficient depth and capacity to provide continuous free outfall.

CONSIDERATIONS

When planning this practice, consider the effects:

- on runoff, infiltration, deep percolation, and potential ground water recharge,
- on existing wetland hydrology,
- of increased drainage waters on downstream baseflow,
- of an increase in dissolved substances that may be discharged to streams,
- on reduction in the yields of sediment or sediment-attached substances,
- on downstream water quality, water use, and water temperature.

PLANS AND SPECIFICATIONS

Plans and specifications for installing mole drains shall be in keeping with this standard and

shall describe the requirements for proper installation of the practice to achieve its intended purpose.

Mole drains shall be installed according to an approved plan, or as modified by an authorized technician at the site.

OPERATION AND MAINTENANCE

Operation and maintenance shall consist of periodic checks to determine that the outlet is open and free flowing.

REFERENCES

NRCS National Engineering Handbook, Part 624, Drainage
Florida Drainage Guide